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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,153	03/29/2004	Kent F. Schien	12129-00018	2946

7590

09/29/2005

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EXAMINER

LAWRENCE JR, FRANK M

ART UNIT

PAPER NUMBER

1724

DATE MAILED: 09/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/812,153

Applicant(s)

SCHIEN ET AL.

Examiner

Frank M. Lawrence

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 August 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.  
4a) Of the above claim(s) 1-14 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 15, 16, 18-23 and 32 is/are rejected.  
7) ☒ Claim(s) 17, 24-31 and 33-37 is/are objected to.  
8) ☒ Claim(s) 1-37 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date (2).  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of Group II, claims 15-37 in the reply filed on August 18, 2005 is acknowledged. The traversal is on the ground(s) that the method claims have been amended to overcome the basis for restriction and that the search for either group would encompass the search for the other group and would not be a serious burden for the examiner. This is not found persuasive because the amendment to claim 1 has not included the treatment of non-animal waste sources, and such treatment is possible with the claimed apparatus (see Rehmat et al., 6,410,283, for treating sewage sludge). It is submitted that the while each group has an original classification in class 210, the process and apparatus can also be classified in several other non-encompassing classes. The species restriction is withdrawn and all of the apparatus claims have been examined.

The requirement is still deemed proper and is therefore made FINAL.

### ***Specification***

2. The disclosure is objected to because of the following informalities: Lines 9-10 of claim 26, lines 12-13 of claim 28, and lines 10-11 and 14-15 of claim 30 appear to be unclear, although the examiner understands what is being claimed. Disregard this objection if the sections are as intended.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 22 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claims 22 and 23 each recite the limitation "said dryer" in line 1. There is insufficient antecedent basis for this limitation in the claim. Each of the claims should be amended to depend from claim 21.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 15, 18, 20, 21 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Rehmat et al. (6,410,283).

8. Rehmat et al. '283 teach a system for converting sewage sludge into electrical power, comprising a bio-digester (10) for receiving sludge from wastewater treatment having 3-30% solids, a filter press (12) for increasing solids content to 25-50% and sending separated water to waste water treatment, a dryer (13) for further increasing solids content to 50-100%, a gasifier (14) for receiving the moisture controlled solids and converting the solids into a gas stream containing hydrogen, a turbine (16) for converting the gas into power, a heat exchanger (15) for recovering heat from gas exiting the gasifier to supply to the dryer, and a second heat exchanger (17) for recovering heat from turbine exhaust to supply to the dryer (see figure 1, col. 2, line 34 to col. 4, line 24).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rehmat et al. '283 in view of Santina et al. (4,750,454).

11. Rehmat et al. '283 disclose all of the limitations of the claims except that there are one or more fuel storage tanks between the gasifier and the power generator. Santina et al. '454 discloses a process for producing energy from animal waste, comprising collecting gas produced in a digester (14) for supply to a power generator (21), and storing the gas in a storage reservoir between the digester and generator (figure 1, col. 6, lines 13-18). It would have been obvious to one having ordinary skill in the art at the time of the invention to include a storage tank between the gasifier and turbine in the Rehmat et al. '283 device in order to allow the storing of excess gas that is produced.

12. Claims 19, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rehmat et al. '283 in view of Capener et al. (4,344,770).

13. Rehmat et al. '283 disclose all of the limitations of the claims except that a pump is used to provide solid waste to the energy conversion processor, and that the dryer comprises a helical auger or blower. Capener et al. '770 disclose a system for converting solid organic material to fuel oil and gas, comprising a dryer (28) including a helical auger for pumping solids to a pyrolysis reactor (50), wherein the dryer includes a burner (42) and air inlet for supplying a

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heated gas to an interior of the dryer (figure 1, col. 2, line 57 to col. 3, line 14). It would have been obvious to one having ordinary skill in the art at the time of the invention to use the dryer of Capener et al. '770 as the dryer of Rehmat et al. '283 in order to provide a unit that simultaneously dries and transports the solids while using produced fuel as a heating source.

***Allowable Subject Matter***

14. Claims 17, 24-31 and 33-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional references listed on the attached PTO-892 form disclose solid waste treatment systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank M. Lawrence whose telephone number is 571-272-1161.

The examiner can normally be reached on Mon-Thurs 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frank M. Lawrence  
Primary Examiner  
Art Unit 1724

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*Frank Lawrence*  
*9-26-05*